WYBRON

Advancing The Art Of Lighting

Eclipse IT Shutter
User Manual

infotrace IT
control & management system

89020 – 1K (7.5 inch) Eclipse IT Shutter IT
811020 – 2K (12 inch) Eclipse Shutter IT
817010 – Large Format (5K/16 inch) Eclipse IT Shutter

Manual revised March 2009

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DECLARATION OF CONFORMITY

Manufacturers Name: Wybron, Inc.
Manufacturers Address: 4830 List Dr., Colorado Springs, Colorado 80919 USA

Equipment Name: Eclipse II IT douser
Equipment Model Number: 87230, 810040, 812010, 823010, 823011, 823012

This product is in conformity with the following standards:

Referenced Safety Standard(s)	**Referenced EMC Standard(s)**
EN60335-1	EN55022

following the provisions of the EU LV Directive 73/23/EEC and the EU EMC Directive 89/336/EEC.

I declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Signature: Kenneth Fasen

Printed Name: KEN FASEN

Title: VP of ENG.

Date: 14 Sept., 2006

Safety Notice

SAVE THESE INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS

CAUTION: The Eclipse IT Shutter mechanical dowser has been designed to withstand the rigors of entertainment lighting. However, the Teflon coating on the blades can only withstand temperatures up to 600°F. When used with some excessively hot fixtures, degradation and possibly flaking of this coating may occur.

USE WITH EXCESSIVELY HOT FIXTURES – OVER 700°F AT THE SHUTTER BLADES – THAT RESULTS IN DEGRADATION OF THE HIGH-TEMP POWDER COATING IS EXCLUDED FROM THE PRODUCT WARRANTY.

This manual gives step-by-step instructions for preparation, setup and operation of the Eclipse IT Shutter dowser.

There is a potential risk of fire, electric shock, or injury to persons if the product is not used as instructed.

The Eclipse IT Shutter dowser is to be used in an indoor environment only and is not intended for residential use.

Introduction

Wybron's Coloram IT system includes mechanical dowsers (Eclipse IT Shutter and Eclipse IT Iris) and PS Power Supplies utilizing the Remote Device Management (RDM) feedback protocol. Each product comes in a range of models and offering ease of setup and use. The Coloram IT system is part of the RDM-based Infotrace system, which represents a new way of managing a lighting installation.

The lightweight dowser slides easily into the gel frame holder of the light fixture. Its compact PS Power Supply attaches easily to the truss of the lighting rig or mounts into a 19-inch rack.

The DMX512 control signal from the lighting console is connected to the PS Series power supply and can continue on to additional PS Power Supplies or other DMX-controlled devices. The power supply sends power, DMX control signal, and RDM information on a single cable, eliminating the need for a separate power cable for the dowser.

Eclipse IT Shutter dowsers are 100 percent compatible with all members of the Coloram IT family, including Coloram IT and CXI IT color changers, PS Power Supplies and Eclipse IT Iris dowsers. You can also daisy-chain Eclipse IT Shutter dowsers with other Coloram IT equipment.

This manual gives step-by-step instructions for preparation, setup, and operation of the Eclipse IT Shutter.

Caution:
The Coloram IT System, including the Eclipse IT Shutter, is not compatible with Coloram II (RAM) or Forerunner systems.

Do not connect Eclipse IT Shutter dowsers to Coloram II (RAM) or Forerunner Power Supplies.

<u>Do not connect Coloram II (RAM) products to PS Power Supplies.</u>

Damage from such action will not be covered by the product warranties.

Quick Start

1. Connect the Equipment

A. Attach the Eclipse IT Shutter dowser to a powered light fixture.
B. Connect the Eclipse IT Shutter dowser to the PS Power Supply using the 4-pin Wybron power/data cable.
C. Connect the PS Power Supply to non-dimmed 100-240 VAC, 50/60Hz power and a DMX source.
D. For those with Infogate, open the Graphical User Interface.
E. Initiate “Perform Discovery.”
F. In the DMX Map, drag and drop the DMX address for the dowser to DMX address 1.
G. Refer to the Infogate manual for more details.

2. Send DMX Levels

A. On the lighting console, change the level of the Eclipse IT Shutter’s DMX channel to open and close the dowser vanes.

Connection Diagram

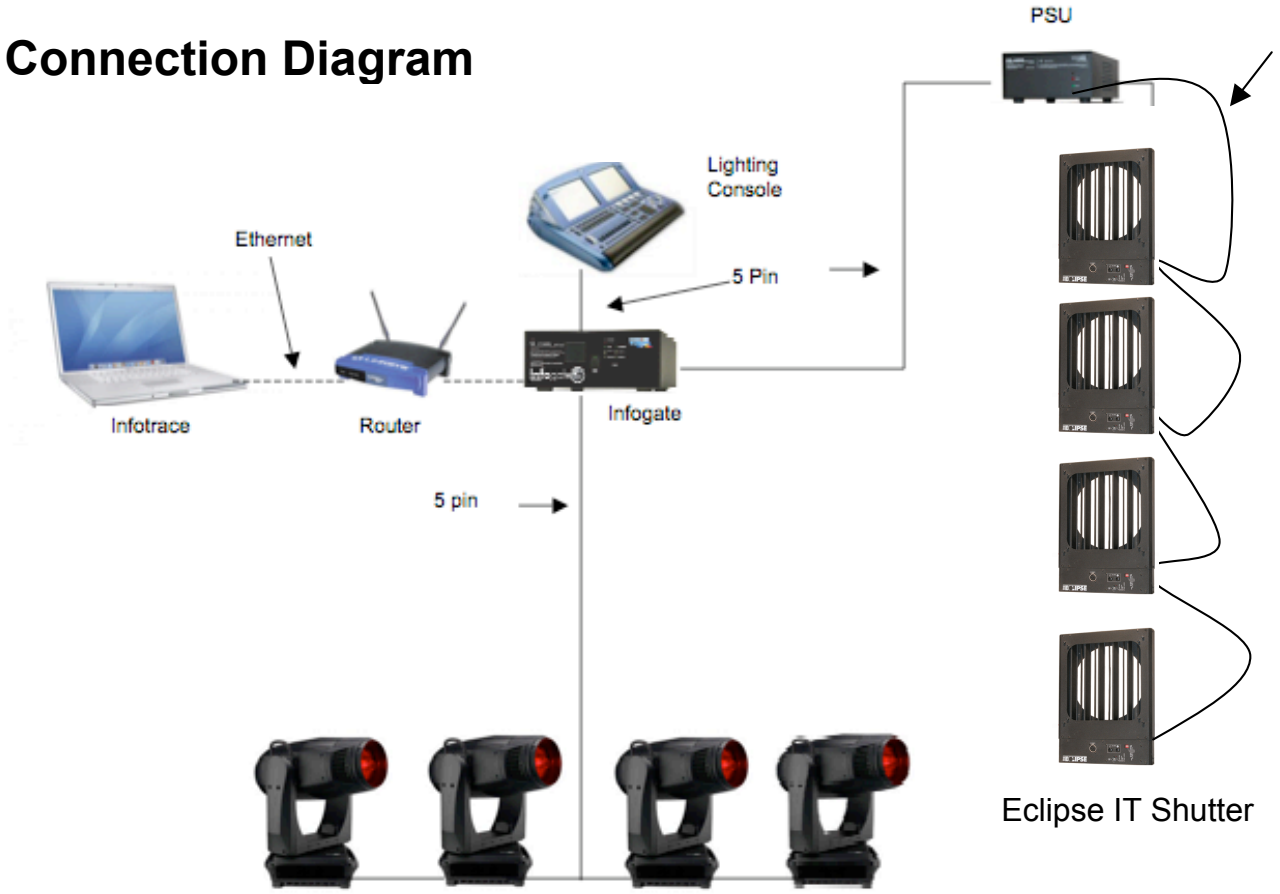


Figure 1

Using the Eclipse IT Shutter Dowser

Operating Modes

The Eclipse IT Shutter dowser has several modes of operation. In all cases, the PS Power Supply is needed for control and power. Please refer to the menu details below for information on how to select DMX, Local, and Snap mode.

DMX512 Control
The level (0-100%) of the DMX channel to which the dowser is addressed determines the fin position. The fins are closed at 0% and open at 100%.

Local Wired Pendant Control
A handheld pendant can be connected to the unit via a 3-pin XLR cable to manually open and close the fins. Movement is from fully open to fully closed in two seconds. The unit can't be partially opened with the pendant. Press the " + " button to open the fins and the " - " button to close them. Either the pendant buttons or the buttons on the dowser itself can be used in local mode. The wired pendant cable can be up to 1000 feet long.

Wired Pendant Cable Pinout

Pin #	Wire Color	Function	Size
1	Silver	Ground	22 AWG
2	Red	Data -	22 AWG
3	Black	Data +	22 AWG

Local Menu Control
The dowser unit can be controlled by the menu buttons on the dowser unit. Please refer to the Menu Details below under Self Test (Demo) for details

Signal and Power

The Eclipse IT Shutter uses a PS Power Supply with 4-pin cables for DMX signal, RDM communication, and 24 volts DC power. The dowser can be daisy-chained with Coloram IT and CXI IT color changers as well as Eclipse IT Iris dowsers. Fin position is determined by the DMX level (0-100%) of the control channel to which the dowser is addressed. The dowser uses one DMX channel.

Fan Speed Control

The fan in the Eclipse IT Shutter is small and cools the electronics enclosure. It always runs at full speed and CANNOT be slowed or stopped.

Installing the Eclipse IT Shutter

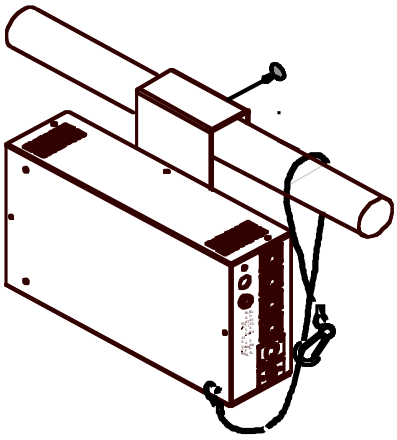
1. Attach the Dowser to the Fixture

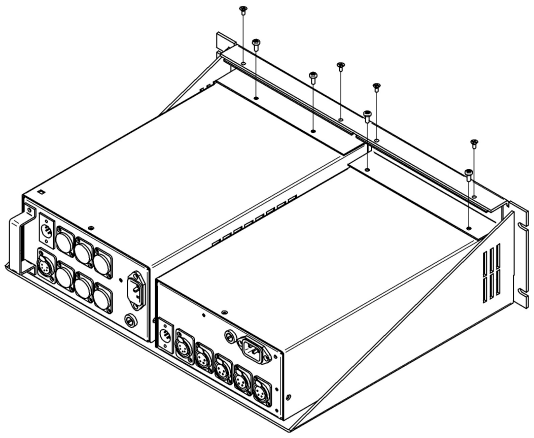
Slide the dowser's mounting bracket into the gel frame holder of your fixture and lock the gel frame retention clip (if available).

The mounting plate allows you to position the dowser with the fins either horizontal or vertical. However, Eclipse Shutter IT operates most effectively with the fan, which is located in the top of the center panel, blowing air vertically (as hot air naturally rises).

2. Attach the Safety Cable

A safety cable is attached to the dowser. Run this cable around the pipe or truss from which you hang the light fixture, then clip the cable to itself.





3. Mount the Power Supply

The power supply comes with a mounting bracket that hooks over the pipe or truss of your lighting rig and is then locked into place with a thumb screw. If you have selected this mounting method, connect the safety cable by running it around the pipe or truss to which the power supply is attached.

The power supply can also be mounted into a 19-inch rack using the optional PS Power Supply rack mount kit. The rack mount kit will accommodate two PS Power Supplies side by side.

4. Connect the Dowser to the Power Supply

Connect the dowser to the power supply using 4-pin cable.

Refer to the HEAD-FEET RESTRICTIONS section of this manual for details regarding the length of cable runs.

5. Connect the Power Supply to AC Power

Plug the AC cord into a non-dimmed power circuit. The power supply automatically accommodates 100 - 240 VAC (50/60 Hz).

Power at the PS Power Supply is indicated by a red LED.

Caution: Do not power the PS Power Supply from a dimmer. Severe damage will result and is not covered by product warranty.

6. Connect the DMX512 Source

Connect the DMX512 signal source to the DMX input connector on the front of the power supply using standard DMX cable. Valid DMX signal will be indicated by a flashing green LED. The dowser will now open and close according to its DMX signal level.

Eclipse IT Shutter
Graphical Menu Tree

[Alerts Menu] >
[DMX Status]
DMX Address: 512
Settings >
Sensor Info >
History
Local Control >
Reset Defaults
Self Test/demo Mode
Reset Defaults

Alerts Menu
This menu only displays when there is an active alert on the unit.

Multiple Alerts
FAN ALERT >
FIN ALERT >

Reset all Alerts? No/Yes

Single Alert
FIN ALERT
FINS OUT OF POSITION

Reset this Alert? No/Yes

DMX Status
Displays status of incoming DMX signal. Examples:
"No DMX Data" *or*
"DMX Signal OK"

DMX Address
Displays current DMX Address that can be selected and modified, using unit buttons.

Note: The unit will remember its DMX Address when unplugged.

Settings
DMX Addresses >
Fins Move Speed >
>

DMX Addresses
Device addresses can be modified from this screen.

Fin Pos Address 1
Time/Dest Addr 2

Fins Move Speed
high
FINS MOVE SPEED TTD info >

Fins Move Speed Options:
High - default
Low
Time/des

Information
*Chart of information regarding **time to destination** remote settings. No changes can be made from this screen.*

TIME TO DEST INFO ONLY	95-100%: Hi
	90-94%: Low
	85-89%: 80 sec
	80-84%: 70 sec
	75-79%: 60 sec
	70-74%: 50 sec
	65-69%: 40 sec
	60-64%: 35 sec
	55-59%: 30 sec
	50-54%: 25 sec
	45-49%: 20 sec
	40-44%: 15 sec
	35-39%: 10 sec
	30-34%: 9 sec
	25-29%: 8 sec
	20-24%: 7 sec
	15-19%: 6 sec
	10-14%: 5 sec
	5-9%: 4 sec

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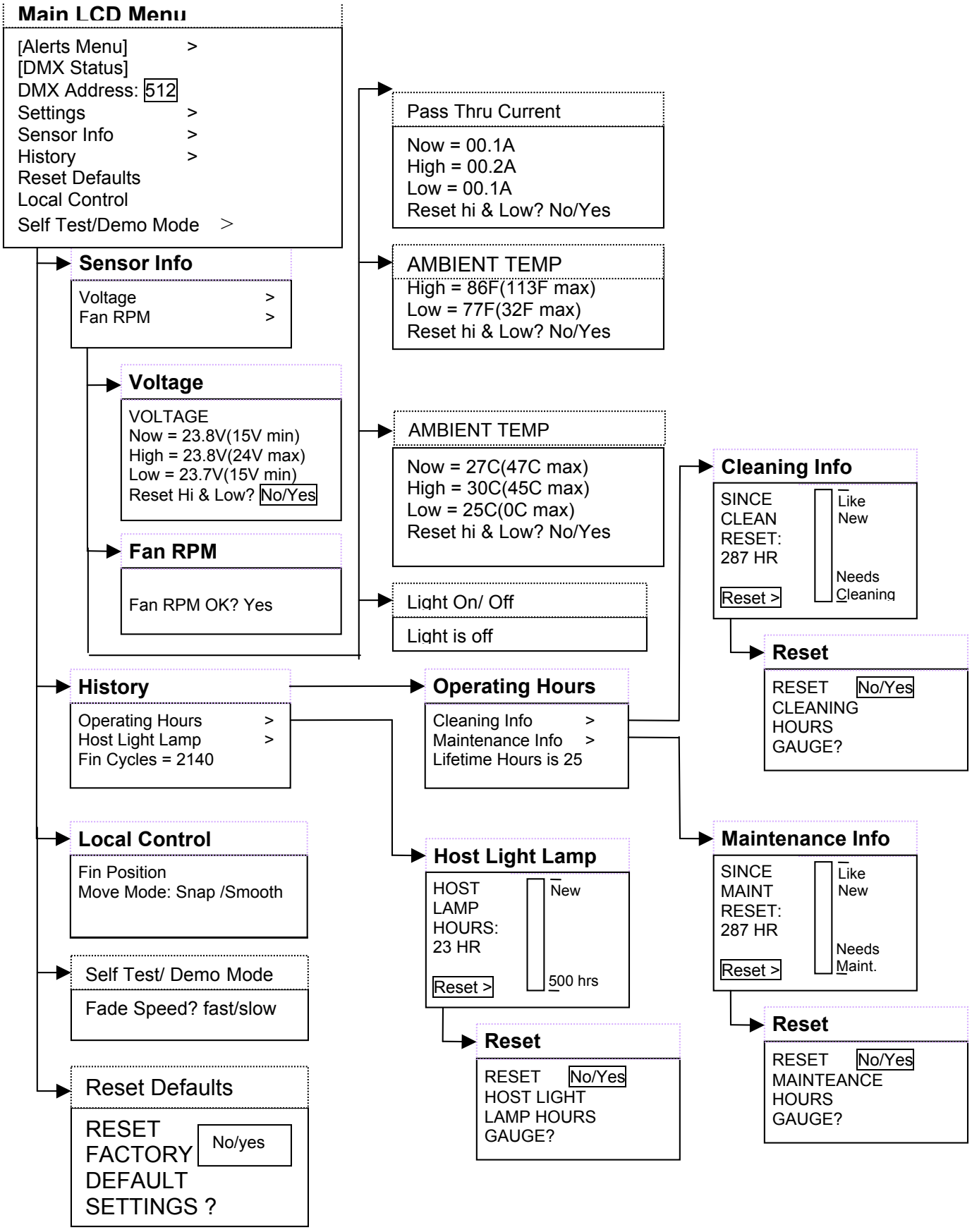
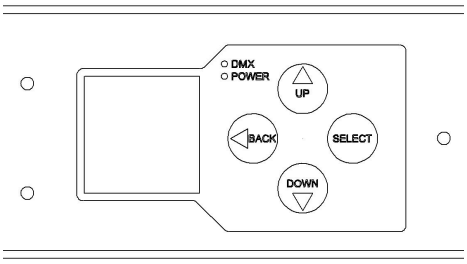

Main LCD Menu
[Alerts Menu] >
[DMX Status]
DMX Address: 512
Settings >
Sensor Info >
History >
Reset Defaults
Local Control
Self Test/Demo Mode >
Sensor Info
Voltage >
Fan RPM >
Voltage
VOLTAGE
Now = 23.8V(15V min)
High = 23.8V(24V max)
Low = 23.7V(15V min)
Reset Hi & Low? No/Yes
Fan RPM
Fan RPM OK? Yes
Pass Thru Current
Now = 00.1A
High = 00.2A
Low = 00.1A
Reset hi & Low? No/Yes
AMBIENT TEMP
High = 86F(113F max)
Low = 77F(32F max)
Reset hi & Low? No/Yes
AMBIENT TEMP
Now = 27C(47C max)
High = 30C(45C max)
Low = 25C(0C max)
Reset hi & Low? No/Yes
Light On/ Off
Light is off
History
Operating Hours >
Host Light Lamp >
Fin Cycles = 2140
Operating Hours
Cleaning Info >
Maintenance Info >
Lifetime Hours is 25
Cleaning Info
SINCE CLEAN RESET: 287 HR
Reset >
Like New
Needs Cleaning
Reset
RESET CLEANING HOURS GAUGE? No/Yes
Local Control
Fin Position
Move Mode: Snap /Smooth
Host Light Lamp
HOST LAMP HOURS: 23 HR
Reset >
New
500 hrs
Reset
RESET HOST LIGHT LAMP HOURS GAUGE? No/Yes
Maintenance Info
SINCE MAINT RESET: 287 HR
Reset >
Like New
Needs Maint.
Reset
RESET MAINTEANCE HOURS GAUGE? No/Yes
Self Test/ Demo Mode
Fade Speed? fast/slow
Reset Defaults
RESET FACTORY DEFAULT SETTINGS ? No/yes

MENU DETAILS

1. Use the arrow buttons to scroll through selections on the display.
2. Press **SELECT** to activate that selection or progress to the next level of displays.



The arrow buttons are also used to navigate to further levels within the display.
For example, to select “Dowser Address”:

1. Press **SELECT**.
2. Use the arrow buttons to move to the selection box to “DMX Address.”
3. Press **SELECT** to select “DMX Address.”
4. Use the arrow buttons to move to the correct address.
5. Press **SELECT** to save the “Dowser Address.”

Alerts / Error Messages

The following is an explanation of alerts and error messages that are displayed locally on the dowser.

To read alert messages:

1. When “SENSOR ALERT” is displayed, press **SELECT.**
2. As an example: “VOLTAGE ALERT” indicates a voltage problem.
3. Press **SELECT** to access more information on the Voltage Alert.
4. For example: “WARNING – VOLTAGE DROPPED BELOW 15V”

VOLTAGE ALERTS

- “WARNING – VOLTAGE DROPPED BELOW 15V”
  Operating voltage has dropped below the minimum operating requirement of 15 volts. The cable between the Eclipse IT Shutter and the PS Power Supply may be too long.

- "VOLTAGE DROPPED
  BELOW 13V
  UNIT SHUTDOWN"
  Unit has automatically shut down because operating voltage has dropped below 13 volts for more than one second. The unit cannot operate properly below 15VDC. The voltage typically drops this low if the Eclipse IT Shutter cable is too long — the head-feet limit has been exceeded. The cable must be shortened to solve this problem.

MOTOR ALERT

1. "MOTOR IS
   OPERATING AT A HI
   CURRENT LEVEL"
   High current level may indicate an ususually high level of friction at the motor. Please check the dowser motor for possible maintenance or replacement.

FAN ALERT

1. "FAN IS NOT
   OPERATING
   PROPERLY"
   Check fan for possible maintenance needs.

RESET ALERT
Clears existing alert from display screen after pressing **SELECT** (unless problem still exists).

MULTIPLE ALERTS
1. Press **SELECT** to read the first alert.
2. Press **SELECT** to read the details of the first alert.
3. Press **BACK** to view the second alert.
4. Press **SELECT** to view details of the second alert.
5. Press **BACK** to check for any additional alerts, repeat steps four and five until all alerts have been read.
6. Once all alerts have been read, select the "RESET ALL ALERTS" command.
7. Press **SELECT** to clear all alerts, except for those bringing attention to problems that still exist.

DMX Address

1. Use the arrow buttons to select the desired DMX address.
2. Press **SELECT** to activate the displayed DMX address.

Settings

DMX ADDRESSES

Dowser Addr (Dowser Address)

A. Use the arrow buttons to select the desired DMX address.
B. Press **SELECT** to activate the desired DMX address.

MODES

DMX or Local

A. Use the arrow buttons to select either DMX or Local mode.
B. Press **SELECT** to activate the desired setting.

Snap Mode

A. Use the arrow buttons to select either On or Off.
B. Press **SELECT** to activate the desired setting.

Sensor Info

VOLTAGE

1. Displays the present voltage and the highest and lowest voltages measured, along with normal minimum and maximum acceptable voltages.

Reset Hi & Low:

A. Use the arrow buttons to select Yes.
B. Press **SELECT** to activate Reset Hi & Low.

PASS THRU CURRENT

1. Displays present pass-through current and the highest and lowest current measured, along with normal minimum and maximum acceptable pass-through current.
   A. Used in automatically sequencing through RDM enabled units on the lighting rig during InfoGate setup procedures.

Reset Hi & Low:

A. Use the arrow buttons to select Yes.
B. Press **SELECT** to activate Reset Hi & Low.

FAN RPM

Press **SELECT** to display answer to the question “IS FAN RPM OK?” (Yes or No).

Self Test (Demo)

MOVE / STOP

1. Use the arrow buttons to select “Move” or “Stop” commands.
2. Press **SELECT** to activate selected command.

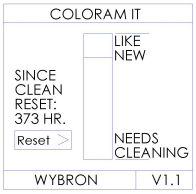
History

OPERATING HOURS

Cleaning Info

A. Lifetime operating hours are shown at the bottom of the first display. This is the total number of hours the dowser has been in use during its lifetime. This counter never resets.

B. Press **SELECT** to display the gauge that indicates how the dowser currently rates between “Like New” and “Needs Cleaning.”



Cleaning means cleaning dust out of the vent slots, off the printed circuit board and off the internal components.

C. The display also shows the number of hours since the dowser’s last cleaning.

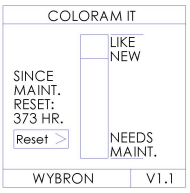
<u>Reset Cleaning Hours</u>

i. Press **SELECT** to select the Reset Hours function.
ii. Use the arrow buttons to select Yes on the “Reset Cleaning Hours Gauge?”
iii. Press **SELECT** to activate.

Maintenance Info

A. Lifetime operating hours are shown at bottom of the first display. This is the total number of hours the unit has been in use over its lifetime. This counter is never reset.

B. Press **SELECT** to display the gauge that indicates how the dowser rates between “Like New” and “Needs Maintenance.”



Maintenance means replacing a failed part on the dowser.

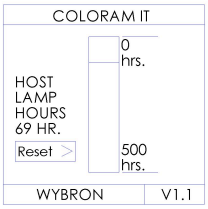
C. The display also shows the number of hours since the last maintenance on the dowser.

Reset Hours

i. Press **SELECT** to choose the Reset Hours function.
ii. Use the arrow buttons to select Yes on the “Reset Maintenance Hours Gauge?”
iii. Press **SELECT** to activate.

Host Light Lamp

A. Press **SELECT** to display the gauge that indicates the number of hours that the lighting fixture lamp has been on since its lamp was installed.



Reset Hours

i. Press **SELECT** to select the Reset function.
ii. Use the arrow buttons to select Yes on the “Reset Host Light Lamp Hours Gauge?”
iii. Press **SELECT** to activate.

Reset Defaults

1. Press **SELECT** to select “Reset Defaults.”
2. Use the arrow buttons to select Yes.
3. Press **SELECT** to activate Reset Defaults:
   Dowser address is 1
   DMX control

Head-Feet Restrictions

The HEAD-FEET parameter is a method of accounting for the voltage drop in the power/signal cable caused by the current drawn by each dowser.

To help understand this issue, think of it as water pressure (voltage) in a hose (cable) with multiple water sprinkler heads (dowsers). If the hose (cable) is too long or you have too many sprinkler heads (dowsers), the water pressure (voltage) will be too low.

HEAD-FEET is defined as "the sum of cable lengths from each dowser to a single power supply output."

Head-Feet Example

There are three Eclipse Shutter IT dowsers connected to a power supply. The Wybron Power/Data Cable between the power supply and the first Eclipse Shutter IT is 100 feet long. The cables between each of the other two Eclipse Shutter IT's is 20 feet long.

The amount of cable from the power supply to:

1st Eclipse IT Shutter	100 ft
2nd Eclipse IT Shutter	120 ft
3rd Eclipse IT Shutter	140 ft
Total:	360 "head-feet"

The maximum HEAD-FEET for all models of the Eclipse Shutter IT dowser is 1500 head-feet.

If a daisy-chain consists of different models, use the model with the smallest amount of "head-feet" for the calculation.

Equipment Compatibility

This chart shows the compatibility and capacity of the various PS Power Supply models and their companion IT devices.

Power Supply:			**PS-150**	**PS-300**	**PS-600**	**PS-450i** *Wall Mount*
Model Number:			820150	820300	820600	20250
Output Power:			150 watts	300 watts	600 watts	300 watts
Quantity per Power Supply:			↓	↓	↓	↓
Description	*Model*	*Max. Head-Feet*				
Coloram IT – 4” and 7.5”	84520 87110	1500	6	12	24	12
Coloram IT – 10”	810100	1000	4	8	16	8
CXI IT – 7.5”	87200	1500	6	12	24	12
Eclipse IT Shutter 8”,10”,16”	89020 811020 817010	1500	8	16	32	16
Eclipse IT Iris 7.5”,10”,12”	87250 810060 812020	1500	6	12	24	12
Eclipse IT Iris 24”	823020	750	3	6	12	6

Cables

4-pin Power/Data Cable

The power/data cable uses 4-pin XLR connectors on either end and consists of two 14 AWG conductors and a 22 AWG twisted, shielded pair. The shells of the two XLR connectors are not electrically connected; this prevents high-power currents from flowing from chassis to chassis of the Coloram IT equipment. The twisted pair shield is connected only at the male XLR connector end. This is the standard Wybron power/data cable.

XLR Pin #	**Wire Color**	**Function**	**Size**
1	White	Ground	14 AWG
2	Green	Data -	22 AWG
3	Red	Data +	22 AWG
4	Black	24 Volts DC	14 AWG

Note: The cable used by the Eclipse IT Shutter is the same cable used by the Coloram IT, Coloram II, and Forerunner systems. The cable may be referred to as 4-pin cable.

DMX512 control cable

If the rig includes Wybron's Infogate gateway, the DMX control cable from the lighting board to the Infogate, dimmers, and power supply is a five-conductor cable with 5-pin XLR connectors on each end. The wiring pin out is specified by the USITT DMX512 / 1990 standard.

XLR Pin #	Function
1	Common
2	Data -
3	Data +
4	Talkback -
5	Talkback +

Non-RDM Equipment

A lighting rig can use any combination of non-IT and non-RDM equipment alongside IT equipment. The non-IT equipment will work the "old-fashioned way" (DMX addressing "by hand" and no status reporting or other features). The RDM protocol allows configuration, status monitoring, and management of RDM devices in such a way that does not disturb the normal operation of the DMX devices that do not recognize the RDM protocol.

Coloram IT and Standard (Non-IT) Environments

The Coloram IT family of products – Coloram IT, CXI IT, Eclipse IT Shutter, and Eclipse IT Iris, which must all be connected to PS Power Supplies – will work in any standard environment that does not use the RDM Infogate.

Specifications

Vane (blade) speed (under DMX control):
- Fast cut: 200 milliseconds (fully open to fully closed and vice-versa)
- Strobe rate: 100 milliseconds (60% amplitude)

Operating modes:
1. DMX512
2. Local wired pendant control
3. Menu buttons on the dowser unit

Number of DMX channels used: One

Status display: Backlit display

LED indicators:
- Red: Power
- Green: DMX signal

Control pendant 3-pin XLR connector pin functions:
- Pin 1: Connect to common to open the fins
- Pin 2: Connect to common to close the fins
- Pin 3: Common

Current Requirements:
- 0.6 amp @ 24VDC

Fuse:
- 1.5 amp Slo-Blo

Mounting Plates:
- Various plates available to fit a wide variety of fixtures
- (Please refer to Wybon's Web site, www.wybron.com, for details)

Wired pendant control cable:
- 3 conductor with 3-pin XLR connectors
- Up to 1000 feet long

Fan:
- Small low-speed fan to cool the electronics enclosure

Safety cable:
- 3.5' long cable included

Daisy-chaining:
- Individual DMX addresses on one home run

Power Supply compatibility:
- PS-150 Power Supply – 150 watts
- PS-300 Power Supply – 300 watts
- PS-600 Power Supply – 600 watts
- PS-450i (Wall Mount) Power Supply – 300 watts

Signal termination:
- None required (depends on system confguation)

Weight:
- 89020 — 8-inch: 6.54 lbs./2.96 kg (without mounting plate)
- 810060 — 10-inch: 6.32 lbs./2.87 kg (without mounting plate)
- 812020 — 16-inch: 11.94 lbs./5.41 kg (without mounting plate)

Aperture diameter:

89020 — 8-inch model: diameter: 8 inches/203.2mm
810060 — 10-inch model: diameter: 10 inches/254mm
812020 — 16-inch model: diameter: 16 inches/406.4mm

Overall dimensions:

1K/8-inch:
10.95"/278mm wide x 15.47"/393mm high x 3.12"/79mm deep

2K/10-inch:
12.95"/329mm wide x 17.47"/444mm high x 2.73"/69mm deep

5K/16-inch:
18.95"/481mm wide x 23.47"/596mm high x 2.18"/55mm deep

Parts List

To order any of the following items, contact your authorized Wybron dealer.

Eclipse IT Shutter Dowsers and Power Supplies

89020 .....8-inch Eclipse Dowser
810060 .....10-inch Eclipse Dowser
812020 .....16-inch Eclipse Dowser
20150 .....PS-150 Power Supply, 150 watts
20300 .....PS-300 Power Supply, 300 watts
20600 .....PS-600 Power Supply, 600 watts
20250 .....PS-450i Power Supply, 300 watts (Wall Mount)

Eclipse IT Shutter Brackets and Other Accessories

715-01-03P .....PS 150-300-600 Power Supply hanger bracket
SCRWC252075.....Wing screw for Power Supply hanger bracket to pipe
SCRSC2520037.....Socket cap screw for hanger bracket to Power Supply
11010-1 .....Control pendant

4-pin Cable

7042-3 .....3' power/signal cable
7042-5 .....5' power/signal cable
7042-10 .....10' power/signal cable
7042-15 .....15' power/signal cable
7042-25 .....25' power/signal cable
7042-50 .....50' power/signal cable
7042-75 .....75' power/signal cable
7042-100 .....100' power/signal cable

Infotrace Feedback System: Overview

The diagram above outlines the key components of the Infotrace feedback system:

Infotrace	–	The entire system based on Remote Device Management (RDM).
Infogate	–	The software and hardware required to facilitate the transfer and display of information.
Infochip	–	A conversion chip that can be used with non-RDM equipment to allow communication with the Infogate software
Infostore	–	An Internet-based application that aggregates data captured by Infogate and allows for the accumulation of historical information related to the equipment performance in the installation.
IT Products	–	Coloram IT, CXI IT, Eclipse shutter IT, and Eclipse Iris IT, all with updated electronics that support RDM communication plus additional product improvements, including sensors to detect a variety of conditions.

The heart of the Infotrace (IT) system is Infogate — specialized software and hardware that uses RDM, an industry-standard feedback protocol, to facilitate remote addressing and diagnostics for potentially every piece of equipment mounted on a rig. Infogate works with all IT products and all RDM-compatible equipment from any manufacturer.

Because Infogate can work with any equipment, the setup, unit testing, and troubleshooting for an entire rig can be coordinated from a single laptop.

In addition, any non-RDM equipment can be upgraded with the installation of an Infochip.

Wybron's IT equipment (Coloram IT, CXI IT, Eclipse Shutter IT, and Eclipse Iris IT) is equipped with a series of sensors that can relay a wealth of information to Infogate. These sensors can detect everything from light, voltage, and current, to fan speed and even gelstring frame color information.

So while RDM equipment will allow identification and remote addressing, IT equipment can give more specific status information and warn of potential problems, possibly averting failures in the middle of a production. If the status of a device indicates any problem, Infogate displays an alert with the nature of the problem and its exact location. Troubleshooting is now accomplished in a fraction of the time.

Infotrace provides the ability to:

- Automate the setup of DMX addresses – no more manual setting of DIP switches
- Proactively check the condition of equipment before, during, and after a show
- Track lamp duty cycles to predict lamp failures before they happen
- Predict maintenance on equipment

RDM Sensors on IT Equipment

• Aperture Light Sensor: Detects if the fixture's lamp is on.

• Voltage Sensor: Reports the head voltage level.

• Timers: Tracks how many hours the unit has been in operation since its last maintenance cycle.

• Fan RPM Sensor: RPM sensor on fan.

• Self-Test Mode: Moves the dowser fins without a DMX input command.

Alert Warnings Include:

- Fan Stopped Warning
- High Motor Current Warning (during initialization)
- Init Fail
- Low Voltage Alert
- Low Voltage Unit Shutdown

Model 89020 – 1K (8 inch) Eclipse IT Shutter

Callout	Quantity	Part Number	Description
(1)	4	SCRFH632150	Flat head screw
(2)	8	Z-2287	Grommet
(3)	1	F0825	Fan 600W
	1	F6025S	Fan 300W/ 150W
(4)	1	2060-01-02	Board bracket 600w only
(5)	4	SCHRFHM4X8	Flat screw head 4mmX 8mm
(6)	4	SCRPH440025P	Pan head black with patch
(7)	4	SCRFHM4X8	Flat screw head 4mmX 8mm
(8)	2	SCRFH832037	3/8 Flat head black stainless
(9)	1	2024-01-06	24 way power supply fan plate
(10)	2	67-1160-ND	5mm Green led
(11)	2	2060-01-03	Led bracket
(12)	2	67-1162-ND	5mm Red led
(13)	1	2060-02-0011	Circuit card
(14)	1	NC5MP	5 Pin chasis MT male
(15)	8	NC4FD-L1	4 Pin chasis MT female (600W)
(16)	20	SCRFH440037	Flat head screw
(17)	1	NC5FP	5 Pin chasis MT female
(18)	1	031-1666	Fuse cap round
(19)	1	313-007	Fuse 7 amp
(20)	1	031-1693	Fuse holder body
(21)	2	SCRFH632037	3/8 Flat head
(22)	1	10EEA1	Power connector filter
(23)	4	SCRPH440037	Pan head screw

Model 811020 – 2K (10 inch) Eclipse IT Shutter

Callout	Quantity	Part Number	Description
(1)	4	SCRFH632150	Flat head screw
(2)	8	Z-2287	Grommet
(3)	1	F0825	Fan 600W
	1	F6025S	Fan 300W/ 150W
(4)	1	2060-01-02	Board bracket 600w only
(5)	4	SCHRFHM4X8	Flat screw head 4mmX 8mm
(6)	4	SCRPH440025P	Pan head black with patch
(7)	4	SCRFHM4X8	Flat screw head 4mmX 8mm
(8)	2	SCRFH832037	3/8 Flat head black stainless
(9)	1	2024-01-06	24 way power supply fan plate
(10)	2	67-1160-ND	5mm Green led
(11)	2	2060-01-03	Led bracket
(12)	2	67-1162-ND	5mm Red led
(13)	1	2060-02-0011	Circuit card
(14)	1	NC5MP	5 Pin chasis MT male
(15)	8	NC4FD-L1	4 Pin chasis MT female (600W)

(16)	20	SCRFH440037	Flat head screw
(17)	1	NC5FP	5 Pin chasis MT female
(18)	1	031-1666	Fuse cap round
(19)	1	313-007	Fuse 7 amp
(20)	1	031-1693	Fuse holder body
(21)	2	SCRFH632037	3/8 Flat head
(22)	1	10EEA1	Power connector filter
(23)	4	SCRPH440037	Pan head screw

Model 817010 – Large Format (16 inch) Eclipse IT Shutter

Callout	Quantity	Part Number	Description
(1)	4	SCRFH632150	Flat head screw
(2)	8	Z-2287	Grommet
(3)	1	F0825	Fan 600W
	1	F6025S	Fan 300W/ 150W
(4)	1	2060-01-02	Board bracket 600w only
(5)	4	SCHRFHM4X8	Flat screw head 4mmX 8mm
(6)	4	SCRPH440025P	Pan head black with patch
(7)	4	SCRFHM4X8	Flat screw head 4mmX 8mm
(8)	2	SCRFH832037	3/8 Flat head black stainless
(9)	1	2024-01-06	24 way power supply fan plate
(10)	2	67-1160-ND	5mm Green led
(11)	2	2060-01-03	Led bracket
(12)	2	67-1162-ND	5mm Red led
(13)	1	2060-02-0011	Circuit card
(14)	1	NC5MP	5 Pin chasis MT male
(15)	8	NC4FD-L1	4 Pin chasis MT female (600W)
(16)	20	SCRFH440037	Flat head screw
(17)	1	NC5FP	5 Pin chasis MT female
(18)	1	031-1666	Fuse cap round
(19)	1	313-007	Fuse 7 amp
(20)	1	031-1693	Fuse holder body
(21)	2	SCRFH632037	3/8 Flat head
(22)	1	10EEA1	Power connector filter
(23)	4	SCRPH440037	Pan head screw

Warranty Information

WYBRON, INC. warrants to the original owner or retail customer that for a period of one year from date of delivery of a portable system or energization of a permanently installed system (up to a maximum of 18 months from delivery) its products will be free from defects in materials and workmanship under normal use and service.

.....Warranty does not cover any product or part of a product subject to accident, negligence, alteration, abuse, misuse or any accessories or parts not supplied by WYBRON, INC. Warranty does not cover "consumable" parts such as fuses, lamps, or color media. WYBRON, INC.'s warranty does not extend to items not manufactured by us. Freight terms on warranty repairs are FOB WYBRON, INC. factory or designated repair facility. Collect shipments or freight allowances will not be accepted.

WYBRON, INC.'s sole responsibility under this warranty shall be to repair or replace at WYBRON, INC.'s option such parts as shall be determined to be defected on WYBRON, INC.'s inspection. WYBRON, INC. will not assume any responsibility for any labor expended or materials used to repair any equipment without WYBRON, INC.'s prior written authorization. WYBRON, INC. shall not be responsible for any incidental, general or consequential damages to property, damages for loss of use, time, profits or income, or any other charges.

The owner's obligations during the warranty period under this warranty are to notify WYBRON, INC. at WYBRON, INC.'s address within one week of any suspected defect, and return the goods prepaid to WYBRON, INC. at their factory or authorized service center.

This warranty is contingent on the customer's full and timely compliance with the terms of payment set forth in said purchase order. This warranty is expressly in lieu of any and all other warranties expressed or implied including the warranties of merchantability and fitness for a particular purpose and of other obligations and liabilities on our part. The owner acknowledges that no other representations were made to him or relied upon him with respect to the quality and function of the goods sold.

This written warranty is intended as a complete and exclusive statement of the terms thereof. Prior dealings or trade usage shall not be relevant to modify, explain or vary this warranty. Acceptance of, or acquiescing in, a course of performance under this warranty shall not modify the meaning of this agreement even though either party has knowledge of the performance and a chance to object.

Revision History

Version	Author	Date	Description
2.0	John Tabor	2/10/09	Model numbers/reformat